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# Improving Disaster-Related Death Registration

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**Webinar**

**Field Services Team**

# Agenda

## 1. Disaster Preparedness and Cause of Death Importance

- a. What is a disaster?
- b. Why is recording disaster on death certificate important?

## 2. Certifying Causes of Death

- a. Cause of death
- b. Other significant conditions
- c. Injury information
- d. Best Practices
- e. Practice

## 3. Certifying Causes of Death in Disasters

- a. CDC “but for” principle
- b. Directly-related vs indirectly-related to disaster
- c. Other Types of Disaster Deaths
- d. Practice

## 4. Cause of Death Workshop

- a. Disaster Surveillance Form
- b. COVID-19 Resources
- c. CDC and VSS Resources



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# Learning Objectives

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- 1. Ability to state why cause of death is important for public health**
- 2. Ability to understand how to accurately complete the cause of death.**
- 3. Ability to determine whether a cause of death is directly or indirectly related to a disaster**



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# Agenda

## **1. Disaster Preparedness and Cause of Death Importance**

- a. What is a disaster?
- b. Why is recording disaster on death certificate important?

## **2. Certifying Causes of Death**

## **3. Certifying Causes of Death in Disasters**

## **4. Cause of Death Workshop**

# Disaster Preparedness and Cause of Death Importance

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## What is a disaster?

- A **serious disruption** of functioning of **society**, causing widespread human, material, or environmental losses that **exceeds the local capacity to respond**, and calls for **external assistance**.
- Disasters can be:
  - Natural (i.e. hurricanes, fires)
  - Human-induced (i.e. oil spills, terrorists), or
  - Complex (i.e. war, drought)



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# Disaster Preparedness and Cause of Death Importance

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## Importance of Death Certificates

- Gold standard for disaster mortality reporting
  - Disaster type and name must be listed somewhere on death certificate
- Death certificate disaster COD information is directly and only from medical certifier, not anecdotal accounts from the media
- Consistent accurate reporting of disaster on death certificate help determine:
  - Most frequent causes of death in disaster
  - Disaster-related death toll



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# Disaster Preparedness and Cause of Death Importance

## Discrepancies in Calculations of Death Tolls

VSS was paper-based for Ike, but electronic TER allowed effective messaging during the disaster.

Disaster	Red Cross	FEMA (Approved Funeral Expenses)	NOAA-NWS Storm Data	Other Agency (EOC, ME)	Vital Stats (Search w/o names)
Hurricane Harvey, TX (2017)	?	?	68	94	69
Hurricane Sandy, NJ (2012)	34	61	12	75	24
April 27 Tornado, GA (2011)	15	9	15	15	6
Hurricane Ike, TX (2008)	38	104	20	74	4



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# Disaster Preparedness and Cause of Death Importance

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## Community Importance of Disaster Mortality Data

- **Applications for aid** - Tracking mortality helps with community's applications for aid
- **Public health message** – Local community officials can use data to quickly relay disaster information to their community
- **Government resources** - Can be allocated for future disaster prevention based on data



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# Disaster Preparedness and Cause of Death Importance

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## Family Importance of Disaster Mortality Data

- **Family benefits -**
  - FEMA may provide funeral assistance payments
  - American Red Cross may provide door-to-door counseling for communities with high disaster-related mortality
  - Survivorship benefits increase for accidental deaths



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# Agenda

## **1. Disaster Preparedness and Cause of Death Importance**

## **2. Certifying Causes of Death**

- a. Cause of death
- b. Other significant conditions
- c. Injury information
- d. Best Practices
- e. Practice

## **3. Certifying Causes of Death in Disasters**

## **4. Cause of Death Workshop**

# Certifying Causes of Death

## Location in TxEVER

**Medical 2:** Cause of death, manner of death, and other contributing factors  
**Medical 3:** Injury information



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EDR: 000000000182 Filing Deadline: 10 Day(s) Unresolved Work Queue Filter: --Select a value-- MEDICAL DATA ENTRY Unresolved Work Queue: PERSON, ANY, 2018/04/27 1

Please enter Enter the chain of events - that caused the death A

Unresolved List / Stakeholders

Demographic 1

Demographic 2

Demographic 3

Demographic 4

Demographic 5

Medical 1

Medical 2

Medical 3

Comments

Activity:

Enter the chain of events - that caused the death: Primary immediate Cause of death

Field Status: Resolved

Action: Updating Record

CAUSE OF DEATH - PART I

Enter the chain of events - diseases, injuries, or complications that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line:  
IMMEDIATE CAUSE (Final disease or condition resulting in death.)

a. PRIMARY IMMEDIATE CAUSE OF DEATH

DUE TO (or as a consequence of.)

b. SUPPORTING CAUSE OF DEATH

DUE TO (or as a consequence of.)

c. ADDITIONAL CONTRIBUTING CAUSES OF DEATH

DUE TO (or as a consequence of.)

d.

Approximate Interval: Onset to Death

MINUTES

DAYS

MONTHS

YEARS

CAUSE OF DEATH - PART II

Enter other significant conditions contributing to death but not resulting in the underlying cause given in Part I:  
[LIST ANY SIGNIFICANT ADDITIONAL REASONS LEADING TO THE DEATH]

AUTOPSY INFORMATION

Was an Autopsy Performed:  
NO

Were Autopsy Findings Available to Complete Cause of Death:  
--Select a value--

MANNER OF DEATH

Manner Of Death: NATURAL

Did Tobacco Use Contribute To Death:  
Tobacco use contribute to death: NO

If Female (AGED 10-54) Pregnant:  
Pregnant: NOT APPLICABLE

Previous

Save

Next

# Certifying Causes of Death

## Location in TxEVER

**VIEWS messages** appear to assist with providing good causes of death (spelling and proper causes of death).

The screenshot displays the 'MEDICAL DATA ENTRY' window in the TxEVER system. A 'VIEWS Message' dialog box is open, showing a validation error. The message text is: 'Field: Cause Of Death Line A. Validation Type: IllDefined Term: INGESTION Message: Ill Defined term "INGESTION" found on Line1a. Please verify entries.' Below the message, it says 'Select 'Ok' to continue or 'Cancel' to correct.' and provides 'Ok' and 'Cancel' buttons. The background window shows fields for 'EDR: 000000000182', 'Filing Deadline: 10 Day(s)', 'Unresolved Work Queue Filter: --Select a value--', and 'Unresolved Work Queue: PERSON, ANY, 2018/04/27'. At the bottom of the window are 'Previous', 'Save', and 'Next' buttons.



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# Certifying Causes of Death

## Cause of Death

Cause of Death section has 2 parts and follows national standard set by CDC



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CAUSE OF DEATH (See instructions and examples)			Approximate interval: Onset to death
<p>32. <b>PART I.</b> Enter the <u>chain of events</u>—diseases, injuries, or complications—that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.</p> <p>IMMEDIATE CAUSE (Final disease or condition -----&gt; resulting in death) a. _____ Due to (or as a consequence of):</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) <b>LAST</b> b. _____ Due to (or as a consequence of):</p> <p>c. _____ Due to (or as a consequence of):</p> <p>d. _____</p>			_____ _____ _____ _____
<p><b>PART II.</b> Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.</p>		<p>33. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
		<p>34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>35. DID TOBACCO USE CONTRIBUTE TO DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> Probably <input type="checkbox"/> No <input type="checkbox"/> Unknown</p>	<p>36. IF FEMALE: <input type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Not pregnant, but pregnant within 42 days of death <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death <input type="checkbox"/> Unknown if pregnant within the past year</p>	<p>37. MANNER OF DEATH <input type="checkbox"/> Natural <input type="checkbox"/> Homicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation <input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>	

# Certifying Causes of Death

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## Cause of Death

- **Section where medical certifier reports the final diseases or conditions that resulted in death**
- **Use your best medical judgement!**
- **This section directly informs mortality and cause of death statistics used to improve public health outcomes**



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# Certifying Causes of Death

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## Cause of Death: Part 1

- 4 lines (a, b, c, d), but don't need to use all lines
- Record, in reverse chronological order, the causal chain of events or conditions leading to death
  - It should read like a story in reverse order
  - Each condition listed should have caused the condition listed on the line above



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# Certifying Causes of Death

## Cause of Death: Part 1



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CAUSE OF DEATH (See instructions and examples)			Approximate interval: Onset to death
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# Certifying Causes of Death

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## Cause of Death

### Time Interval Between Onset and Death

- Interval between **presumed onset** of the condition (not date of diagnosis) and **time of death**
- Use specific or general terms. I.e.
  - 15 minutes, 5 hours, 4 days, 12 years
  - Minutes, hours, days, years
  - Unknown, approximately \_\_\_\_



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# Certifying Causes of Death

## Cause of Death



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CAUSE OF DEATH (See instructions and examples)			Approximate interval: Onset to death
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# Certifying Causes of Death

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## Other Significant Conditions

- Appears in Part II
- Other significant conditions **contributing to the death**, but **not resulting** in the underlying cause in Part I



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## Other Significant Conditions



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# Certifying Causes of Death

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## Injury Information

- Indicate whether the injury was related to transportation (including role of decedent)
- Report other injury information (date, time, location, work-relation)
- Describe how injury occurred
  - Used by JPs to effectively report Hurricane Harvey deaths
  - Provides valuable details about circumstances of death



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# Certifying Causes of Death

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## Best Practices

- Use the information available to you (medical record, autopsy report, people familiar with case, medical training)
- Use best medical judgement
- Report an underlying cause
- Be specific as possible
- Report a logical sequence
- If etiology or COD is unknown, state it is unknown



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# Certifying Causes of Death

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## Best Practices

- Don't report mechanisms of death (i.e. cardiac arrest, respiratory arrest, asystole)
- Don't use terms like "old age", "senescence" or "infirmary"
- Don't use abbreviations
- Don't report multiple conditions per line
- Don't continue the sequence in Part II
- Don't copy directly from discharge summary or autopsy report
- Don't provide a list of every single ailment



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# Certifying Causes of Death

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## Practice 1: Hurricane Sandy

A 28-year old male died when a tree fell on him during Hurricane Sandy. He suffered multiple trauma, including a fractured skull causing cerebral contusion. Emergency medical service and police reports indicated he thought the hurricane had passed and was walking his dogs.



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# Certifying Causes of Death

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## Practice 1: Hurricane Sandy

- (a) Cerebral contusion
- (b) Fractured Skull
- (c) Blunt impact to head

Other significant conditions: N/A

Injury Info: Decedent was struck by a falling tree during Hurricane Sandy



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# Agenda

**1. Disaster Preparedness and Cause of Death Importance**

**2. Certifying Causes of Death**

**3. Certifying Causes of Death in Disasters**

a. CDC “but for” principle

b. Directly-related vs indirectly-related to disaster

c. Other Types of Disaster Deaths

d. Practice

**4. Cause of Death Workshop**

# Certifying Causes of Death in Disasters

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## CDC “But For” Principle

- Use to determine whether the death was related to the disaster
  - Would the person be alive, “but for” the disaster?
  - If the disaster did not happen, would the death have occurred anyway?



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# Certifying Causes of Death in Disasters

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## CDC “But For” Principle

Ask yourself these questions to determine if the disaster should be reported:

1. Did the death occur during a disaster?
2. Was the death related to the disaster?
- 3. If yes to 1 and 2, indicate the disaster on the death certificate**
  - a. Record disaster type and name
  - b. Record the circumstances of death



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# Certifying Causes of Death in Disasters

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## CDC “But For” Principle

- Patient died of an asthma attack 1 week after the hurricane subsided.
- Would the patient have died anyways due to asthma even if the hurricane did not occur?
  - Maybe, but the person may have lived “but for” the mold after flooding from hurricane and lack of ambulance access



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# Certifying Causes of Death in Disasters

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## Direct vs Indirect Relation to Disaster

Helps medical certifier think about the death's relatedness to the disaster

- Indirectly-related deaths are underreported
- You will **not** need to specify whether the death was directly or indirectly related on death certificate



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# Certifying Causes of Death in Disasters

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## Direct vs Indirect Relation to Disaster

### Directly-Related Disaster Death:

Caused by the forces of the disaster or direct consequences of these forces



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# Certifying Causes of Death in Disasters

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## Direct vs Indirect Relation to Disaster

Ask yourself:

- *Was the death caused by the actual forces of the disaster (e.g., wind, rain, flood, earthquake, or blast wave) or by the direct consequences of these forces (e.g., structural collapse, chemical spill, or flying debris)?*
- **Directly-related** disaster death



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# Certifying Causes of Death in Disasters

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## Direct vs Indirect Relation to Disaster

### Examples of **Directly**-Related Causes

- Fire or smoke inhalation
- Burns
- Crushing
- Drowning
- Electrocution
- Falls
- Hyperthermia
- Hypothermia
- Radiation or chemical poisoning
- Suffocation
- Traumatic injury
- Blunt-force trauma
- Penetrating injury



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# Certifying Causes of Death in Disasters

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## Direct vs Indirect Relation to Disaster

### Indirectly-Related Disaster Death:

Disaster led to unsafe or unhealthy conditions or a loss or disruption of usual services that contributed to the death

Ex. COD was “carbon monoxide poisoning” and circumstances of death was “using a fireplace during power outage after Hurricane Harvey”



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# Certifying Causes of Death in Disasters

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## Direct vs Indirect Relation to Disaster

Ask yourself:

- *Did the forces of the disaster lead to unsafe or unhealthy conditions that caused a loss or disruption of usual services (e.g., utilities, transportation, environmental protection, medical care, police/fire) AND did these losses or disruption contribute to the death?*
- **Indirectly-related** disaster death



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## Direct vs Indirect Relation to Disaster

### Examples of **Indirectly**-Related Causes

- Loss/disruption of public utilities
- Loss/disruption of transportation-related services
- Loss/disruption of usual access to medical or mental health care
- Preparation for disaster
- Social disruption (i.e. riots, anarchy)
- Return to unsafe, unhealthy structures or environment



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# Certifying Causes of Death in Disasters

## Where should disaster be reported?



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**CAUSE OF DEATH (See instructions and examples)**

32. **PART I.** Enter the chain of events—diseases, injuries, or complications—that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.

**IMMEDIATE CAUSE** (Final disease or condition resulting in death) → a. Asphyxia  
Due to (or as a consequence of):

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the **UNDERLYING CAUSE** (disease or injury that initiated the events resulting in death) **LAST** b. Smoke inhalation from Woolsey Wildfire  
Due to (or as a consequence of):

c. \_\_\_\_\_  
Due to (or as a consequence of):

d. \_\_\_\_\_

**PART II.** Enter other significant conditions contributing to death but not resulting in the underlying cause given in Part I.

Asthma

WAS AN AUTOPSY PERFORMED? ☐ Yes ☐ No  
WERE AUTOPSY FINDINGS NECESSARY TO COMPLETE THE CAUSE OF DEATH? ☐ Yes ☐ No

# Certifying Causes of Death in Disasters

## Where should disaster be reported?



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CAUSE OF DEATH (See instructions and examples)		Approximate interval: Onset to death
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<p><b>PART II.</b> Enter other <u>significant conditions</u> contributing to death but not resulting in the underlying cause given in PART I.</p> <p><b>EMS unable to respond to 911 call due to flooded roads after Hurricane Matthew</b></p>		<p>NOT PERFORMED? <input type="checkbox"/> No</p> <p>BY FINDINGS AVAILABLE TO CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>37. <b>MANNER OF DEATH</b></p> <p><input checked="" type="checkbox"/> Natural <input type="checkbox"/> Homicide</p> <p><input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation</p> <p><input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>		



# Certifying Causes of Death in Disasters

## Other Types of Disaster Deaths

### Work-related deaths

- Occur during the course of providing services
- Complete the injury fields, including the injury at work checkbox



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40. PLACE OF INJURY (e.g., Decedent's home; construction site; restaurant; wooded area)

**At work in a water treatment facility**

41. INJURY AT WORK?

☒ Yes ☐ No

43. DESCRIBE HOW INJURY OCCURRED:

**Pipe connecting to tank of chlorine cracked during Northridge, California, earthquake and released chlorine gas into facility where he was working**

# Certifying Causes of Death in Disasters

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## Other Types of Disaster Deaths

### Natural deaths

- Exacerbated chronic conditions
  - Asthma from smoke inhalation or mold
  - Cardiovascular diseases
- Lack of access to routine medical services
  - Roads blocked
  - Lack of electricity for life-support machines
- Chemical poisonings
  - Carbon monoxide poisoning from generator
  - Chlorine gas exposure from damaged tanks



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# Certifying Causes of Death in Disasters

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## Other Types of Disaster Deaths

### Carbon Monoxide (CO) Poisonings

- Ensure this information is noted on death certificate
  - Source of carbon monoxide
    - Gas range, generator, charcoal grill
  - Location of the source
    - Basement, outside near window, house, garage, automobile
  - Circumstances (and is it disaster-related)
    - Power outage, using alternative heat source during snowstorm, no CO detector in home
  - Manner
    - Consider intentional poisoning



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## Other Types of Disaster Deaths

### Deaths outside disaster declaration

- Deaths can occur before, during, after, and far into future after a disaster. Examples:
  - Electrocution while posting evacuation signs
  - Drowning during flood
  - Suicide years later due to losses
  - Death due to complications of hip fracture 5 years after falling during disaster



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## Practice 1: Landslide

A landslide occurred at a local construction site where a road was being built in Denver, Colorado. The Colorado National Guard found the body of a 29-year-old male buried under five meters of earth. The decedent was confirmed to be one of the construction workers onsite.

- Is this death disaster-related?
- What disaster-related data would you include on the death certificate?



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## Practice 1: Landslide

- Is this death disaster-related?

**Answer: Yes (directly)**

- What disaster-related data would you include on the death certificate?

**Answer: Disaster type and name and circumstance of death should be included in the “Describe How Injury Occurred” box, disaster type and name also in Part I**



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## Practice 1: Landslide

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# Certifying Causes of Death in Disasters

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## Pending Causes of Death

If a cause of death is pending autopsy/toxicology results,

- 1. File the death as “Pending Investigation”**
- 2. Use a medical death amendment to indicate final cause of death**



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# Agenda

- 1. Disaster Preparedness and Cause of Death Importance**
- 2. Certifying Causes of Death**
- 3. Certifying Causes of Death in Disasters**

## **4. Cause of Death Workshop**

- a. Disaster Surveillance Form
- b. COVID-19 Resources
- c. CDC and VSS Resources



# Certifying Causes of Death in Disasters

## Disaster Surveillance Form



**CONFIDENTIAL**  
Disaster-related Mortality Surveillance Form  
Email to [dshsplan@dsbs.state.tx.us](mailto:dshsplan@dsbs.state.tx.us) or fax to (512) 776-4980  
FAX to: (512) 776-4980  
Complete one form per decedent

Part I Deceased information		
1. Case / medical record number:	2. Name: <input type="checkbox"/> Unknown First Middle Last	
3. Date of Birth: <input type="checkbox"/> Unknown (MM/DD/YY)	4. Age in years: <input type="checkbox"/> < 1 yr <input type="checkbox"/> Middle <input type="checkbox"/> Last	
5. Residence of decedent: Address _____ City _____ State _____	6. Ethnicity: <input type="checkbox"/> Hispanic <input type="checkbox"/> Non Hispanic <input type="checkbox"/> Unknown	7. Race: <input type="checkbox"/> American Indian or Alaskan Native <input type="checkbox"/> Black or African American <input type="checkbox"/> Native Hawaiian or other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Other race
8. Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Undetermined	9a. Date of Death: (MM/DD/YY) _____ 9b. Time of Death: _____ (24 hr clock) <input type="checkbox"/> Unknown	10. Date of body recovery (MM/DD/YY) _____ <input type="checkbox"/> Unknown
11. Place of death or body recovery (circle): <input type="checkbox"/> Decedent's home <input type="checkbox"/> Other person's home <input type="checkbox"/> Prison or detention center <input type="checkbox"/> Nursing home / long term care facility <input type="checkbox"/> Evacuation Center/shelter <input type="checkbox"/> Hotel / motel <input type="checkbox"/> Vehicle <input type="checkbox"/> Hospital <input type="checkbox"/> Hospice facility <input type="checkbox"/> Other (specify) _____		
12. Location of death or body recovery (circle): City _____ State _____		
13. Was the individual paid or volunteer worker involved in disaster response? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Part II Probable Cause and Circumstance of death (check one that best applies)		
14. Cause of death—Injury <input type="checkbox"/> Drowning <input type="checkbox"/> Electrocution <input type="checkbox"/> Lightning <input type="checkbox"/> Motor Vehicle <input type="checkbox"/> driver <input type="checkbox"/> occupant <input type="checkbox"/> unknown <input type="checkbox"/> Pedestrian/bicyclist struck by vehicle <input type="checkbox"/> Structural collapse <input type="checkbox"/> Fall <input type="checkbox"/> Cut/struck by object/tool <input type="checkbox"/> Poisoning/toxic exposure: <input type="checkbox"/> CO exposure <input type="checkbox"/> Inhalation of other fumes/smoke, dust, gases <input type="checkbox"/> Ingestion of drug or substance <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Suffocation/asphyxia <input type="checkbox"/> Burns (flame or chemical) <input type="checkbox"/> Heat (e.g., hyperthermia, dehydration) <input type="checkbox"/> Cold (e.g., hypothermia) <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Unknown cause of injury	15. Cause of death—Illness <input type="checkbox"/> Neurological disorders <input type="checkbox"/> Respiratory illness or disease <input type="checkbox"/> Cardiovascular illness or disease <input type="checkbox"/> Renal failure <input type="checkbox"/> GI and endocrine <input type="checkbox"/> Sepsis <input type="checkbox"/> Allergic reaction <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Unknown cause of illness	
16. Cause of death: <input type="checkbox"/> Confirmed <input type="checkbox"/> Probable <input type="checkbox"/> Pending <input type="checkbox"/> Unknown		
17. Probable relationship of cause of death to disaster: <input type="checkbox"/> Direct <input type="checkbox"/> Possible <input type="checkbox"/> Indirect <input type="checkbox"/> Unrelated		
18. Probable manner/intent of death: <input type="checkbox"/> Natural <input type="checkbox"/> Suicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending <input type="checkbox"/> Homicide <input type="checkbox"/> Undetermined		
19. Circumstance of death: (free text)		
Part III Reporting Person and Agency		
Contact Person:	Agency:	Telephone:
		Date of report completed: (MM/DD/YY)

Rev 06/21/11  
1. Decedent Information  
2. Case / Medical record number—As appears in facility record  
3. Names: First, Middle, and Last name



**Disaster-related Mortality Surveillance Form**  
(General instructions for completion of mortality form)

Complete the mortality form for all known mortalities related to a disaster. This information should be obtained from a medical examiner or justice of the peace office if possible. Please complete one form per decedent.  
Email to [dshsplan@dsbs.state.tx.us](mailto:dshsplan@dsbs.state.tx.us) or FAX to (512) 776-4980

Q3. Date of birth—Date of birth in MM/DD/YY format	Q4. Age in years—Age in years, if age is less than one year please check the appropriate box
Q5. Residence of decedent—Decedent's address, city, and state of residence	Q6. Ethnicity—Hispanic or non-Hispanic category
Q7. Race—Select one or more of the racial category	Q8. Gender—Male, female
Q9a. Date of death—Date of death in MM/DD/YY format	Q9b. Time of death—Enter the exact or estimated time and minute according to 24-hour clock
Q10. Date of body recovery—Date body taken from place of death in MM/DD/YY format	Q11. Place of death or body recovery—Place where decedent was physically located at the time of death. Indicate either location of death or location of body recovery by circling "death" or "body recovery."
Q12. Location of death—City, county, and state of death. Indicate either location of death or location of body recovery by circling "death" or "body recovery."	Q13. Refers to work related deaths, this includes volunteers deployed for disaster response.
<b>Cause and Circumstance of Death</b> Q14. Cause of death/injury: Record the mechanism that best describes the death. Record other and specify if the cause is not listed, but is known. • Drowning—Includes but not limited to accidental drowning while in natural/flood water or following fall into natural/flood water. • Electrocution—Includes but not limited to exposure to electric transmission lines or other unspecified electric current. • Lightning—Includes death related to thunder or lightning. • Motor vehicle occupant/driver—Identify if driver or occupant. Includes collisions relating to land transport accidents (e.g., car, motorcycle). • Pedestrian/bicyclist struck by vehicle—Includes collisions involving non-motorized road users with motorized vehicles during the disaster period. • Structural collapse—Includes but not limited to building or shelter collapse. • Fall—Includes but not limited to falls on same level from slipping or tripping; falls involving ice and snow; falls from trees, bed, stairs, roofs, ladders, etc. • Cut/struck by object/tool—Includes but not limited to contact or collision with inanimate objects that results in a physical damage and causes death. • Poisoning/toxic exposure—Includes accidental poisoning by and exposure to liquids or gases and ingestion of drugs or substances. • Suffocation—Includes but not limited to mechanical or oxygen depleted environment. • Burns—Includes but not limited to chemical, fire, hot object or substances contact. • Firearm/gunsshot—Firearm injuries, including self-inflicted. • Heat related injury—Includes excessive heat as the cause of heat stroke, hyperthermia, dehydration, or others. • Cold related injury—Includes excessive cold as the cause of hypothermia. Q15. Cause of death/illness—Record the cause that best describes the disease process. If other, please specify. • Neurological disorders—Includes but not limited to CNS infectious disease, seizure disorder, intracerebral hemorrhage, cerebral infarction and stroke. • Respiratory illness or disease—Includes but not limited to COPD, pneumonia, asthma and pulmonary embolism. • Cardiovascular illness or disease—Includes but not limited to atherosclerotic cardiovascular disease, heart failure. • Renal failure—Includes kidney failure and other disorders of the renal system. • GI and endocrine—Includes but not limited to upper and lower GI bleeding, jaundice, hepatitis and pancreas. • Sepsis—Includes systemic infection. • Allergic reaction—Topical or systemic reaction including anaphylactic shock. Q16. Cause of death: • Confirmed—If the cause of death was certain and confirmed by a ME/justice of the peace • Probable—If there is uncertainty to confirm the cause • Pending—If the case is subject for further investigation Q17. Relationship • Direct—refers to a death caused by the environmental force of the disaster (e.g., wind, rain, floods, or earthquakes) or by the direct consequences of these forces (e.g., structural collapse, flying debris). • Indirect—refers to unsafe or unhealthy conditions, or conditions that cause a loss or disruption of usual services that contributed to the death. Unsafe or unhealthy conditions may include but are not limited to hazardous road conditions, contaminated water supplies, scattered debris. Disruptions of usual services may include but are not limited to utilities, transportation, environmental protection, medical care or police/fire. • Possible—refers to a death that occurred in the disaster-affected area during the disaster period. The cause of death appears to be directly-related or indirectly-related to the event but for which there is inadequate information available to make that determination at the time of recovery. • Unrelated—refers to a death with no relationship to the disaster. Q18. Manner/intent of death—Record the category that best describes the manner/intent of death. Q19. Circumstances of death. Describe, in free text, the circumstances of the death, what happened?	
Reporting Person/Agency	Contact Person and Telephone: Name of reporting person and telephone Agency: Agency that provided the information Date of report completed: Date of the survey form completed in MM/DD/YY format



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# Certifying Causes of Death in Disasters

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## Disaster Surveillance Form

- Should be submitted within 24 hours to regional health department office on all decedents
- Indicate probable relationship of death to disaster (direct, indirect, possible, unrelated)
  - Resubmit form if relationship changes
- Form provided to JP/MEs, nephrology services providers, public health regions



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# Certifying Causes of Death in Disasters

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## Disaster Surveillance Form

- Quickly provides number of deaths and basic information to public health and emergency management officers
- Allows assessment of impact and scope of disaster
- Allows for immediate public health interventions



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# Certifying Causes of Death in Disasters

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## Disaster Surveillance Form

- Disaster reporting discrepancies between surveillance form and death record
  - Sometimes a Disaster Surveillance Form is submitted for a decedent, but the disaster is not reported on the death record
- **If you report disaster on one, report on the other.**
- **If you need to update disaster status on one, update the other**



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# Note from Disaster Epi of DSHS

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The email to use is: [DSHSDisasterEpi@dshs.texas.gov](mailto:DSHSDisasterEpi@dshs.texas.gov)

- The form is to be used **when the Center for Health Emergency Preparedness and Response(CHEPR) initiate disaster mortality surveillance for a disaster** and is not a form that should be used automatically whenever a certifier feels they may have a disaster related death. **Certifiers only need to fill out the disaster-related form when DSHS is conducting disaster-related mortality surveillance.**



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# Note from Disaster Epi of DSHS

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- CHEPR leadership will ask that an alert be placed on TxEVER so certifiers can know that DSHS has begun disaster mortality surveillance and they should start documenting disaster related deaths.
- The State Medical Operations Center (SMOC) disaster mortality surveillance team will notify JPs and MEs to report disaster deaths using the disaster-related mortality surveillance form.



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# COVID-19 Death Certification

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For deaths due to COVID-19, report COVID-19 in Cause of Death – Part I on the Medical 2 tab. Report other chronic conditions that may have contributed (e.g. COPD, asthma) in Cause of Death – Part II on the Medical 2 tab. (Per Texas DSHS)



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# COVID-19 Resources

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- <https://www.dshs.texas.gov/coronavirus/> (DSHS site)
- <https://www.cdc.gov/coronavirus/2019-ncov/index.html> (CDC site)
- <https://www.cdc.gov/nchs/data/nvss/vsrg/vsrg03-508.pdf> (CDC COVID-19 Death Certification Guide)



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# Cause of Death Workshop

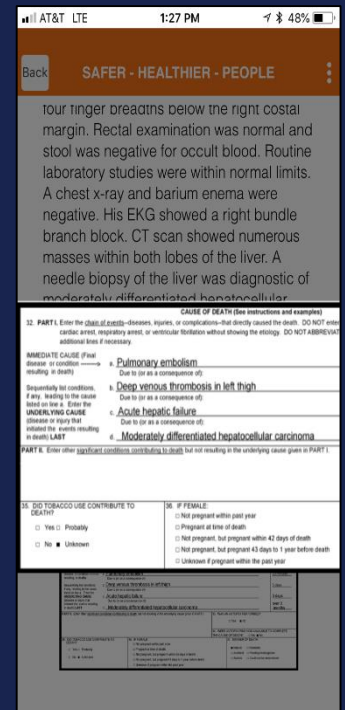
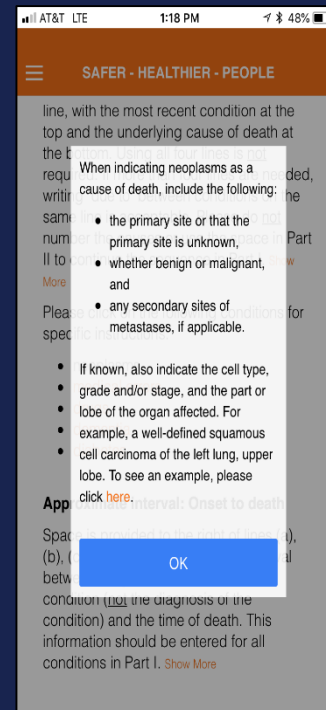
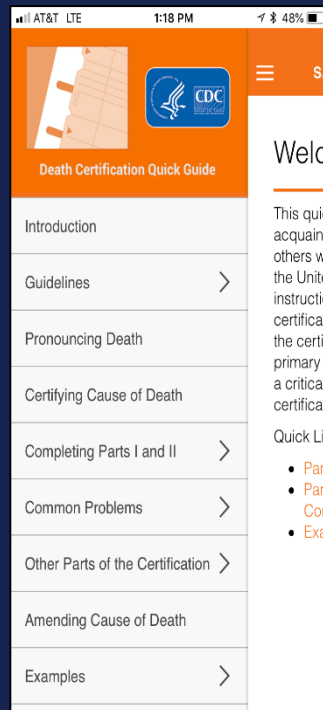
## CDC Resources: CDC App

### Cause of Death Quick Reference Guide



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# Cause of Death Workshop

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## CDC Resources: CDC App

### Cause of Death Quick Reference Guide

- Contains example scenarios and CODs
- Based off of CDC Physicians' Handbook on Medical Certification of Death
- Available on Apple App Store and Android Google Play Store



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# Cause of Death Workshop

## CDC Resources: CDC Training

### Cause of Death Reporting Online Training



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A screenshot of a web-based training interface titled "Improving Cause of Death Reporting". The interface has a dark blue header bar with the title, "Slide 1 of 50", and navigation icons (Home, Help, Close). The main content area has a teal background with the title "Improving Cause of Death Reporting" in white. Below the title are six blue buttons arranged in two rows: "Importance of Cause of Death Reporting", "Completing the Cause of Death Section", "Electronic Certificates", "Medical Examiner/Coroner Cases", "Improving Cause of Death Quiz", and "Additional Resources". A note at the bottom states: "NOTE: To enable audio narration for this training, please click the 'Enable Audio' button." The bottom of the interface features a video player control bar with a progress bar (00:00 | 00:29), an "Enable Audio" button, a "Narration Text" button, and navigation arrows.

# Cause of Death Workshop

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## CDC Resources: CDC Training

### Cause of Death Reporting Online Training

- Accredited for Physicians (CMEs), Non-Physicians (Certificate of Participation), Nurses (CNEs)
- [https://www.cdc.gov/nchs/nvss/improving\\_cause\\_of\\_death\\_reporting.htm](https://www.cdc.gov/nchs/nvss/improving_cause_of_death_reporting.htm)



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# Cause of Death Workshop

## VSS Resources: User Guides

- Death Registration Guidelines and Item-by-Item for TxEVER medical certification and amendments
- Available on Vital Statistics website:  
<https://dshs.texas.gov/vs/field/TxEVER/guides.aspx>



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BASIC DEATH REGISTRATION  
MEDICAL CERTIFICATION



**TxEVER**  
**How-To Death Registration –**  
**Medical Amendment**  
**for ME and JP**  
**Provider Readiness and**  
**Training**

# Thank You



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A special thank you to Centers for Disease Control for their  
Cause of Death training assistance.

If you have any questions, please contact your Field Services  
team at [fieldservices@dshs.texas.gov](mailto:fieldservices@dshs.texas.gov).